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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,131

02/20/2004

Joseph S. Stam

AUTO 211 US1

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11/22/2005

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EXAMINER

ZANELLI, MICHAEL J

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/783,131

Applicant(s)

STAM ET AL.

Examiner

Michael J. Zanelli

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33, 36-59, 63 and 68 is/are rejected.
- 7) ☒ Claim(s) 34, 35, 60-62, 64-67 and 69-73 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This is responsive to the amendment filed 9/19/05. Claims 1-73 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The drawings are objected to because the blocks shown in Figs. 4, 7a, 7e, 8a, 9a-9i and 10 must contain descriptive legends.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The abstract of the disclosure is objected to because it fails to adequately describe the invention. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

5. Claims 1-15, 18, 19, 24-29, 36, 37, 40-45, 48, 49, 54-59 and 68 stand rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu (6,515,271).

- A. As per claims 1, 14, 28, 36, 40, 42 and 58, Shimizu discloses an image sensor unit (Figure 4) comprising an imager (101) with at least control outputs and low voltage differential signal (LVDS) transceiver (107) as well as a buffer memory (112). As shown in Figure 4, the components are at least interconnected by a wire. Shimizu further discloses that the components may be located on a common silicon wafer (column 6, lines 46-55). The LVDS permits high transmission rates with reduced electromagnetic interference (column 6, line 56 to column 7, line 40). In addition, Shimizu discloses connecting the output of the imager to a processor via the LVDS transceiver (Figure 5).
- B. As per claims 2-7, 15, 18, 19, 24, 25, 29, 37, 43-45, 48, 49, 54, 55, 59 and 68, as above wherein Shimizu discloses locating one or more components on a common silicon

wafer and additional components such as an analog to digital converter and memory devices may be included (column 6, lines 6-17, 43-58).

C. As per claim 41, as above wherein Shimizu discloses providing a plurality of image sensors (column 9, lines 11-14).

6. Claims 28, 29 and 40 stand rejected under 35 U.S.C. 102(b) as being anticipated by CONEXANT SYSTEMS, INC. (WO 99/55082).

A. As per claims 28, 29 and 40, Conexant discloses an imaging apparatus comprising an image sensor, differential output circuits and an analog to digital converter on a silicon chip (Abstract).

7. Claims 28 and 29 stand rejected under 35 U.S.C. 102(b) as being anticipated by Stam et al. (6,008, 486).

A. As per claims 28 and 29, Stam discloses an imager comprising an image sensor with at least control outputs and analog to digital converter on a common chip (Figure 1; column 3, lines 35-56).

8. Claims 14, 16-18, 20, 21 and 23 stand rejected under 35 U.S.C. 102(e) as being anticipated by Jackson, Jr. (6,806,485).

A. As per claims 14, Jackson discloses an automatic vehicle control equipment system which comprises an image sensor (col. 3, lines 18-23) and at least one control output (col. 3, lines 37-40).

B. As per claims 16-18, 20, 21 and 23, as above wherein the image sensor is used to automatically control a vehicle's exterior lights (col. 2, lines 8-9) and further includes a processor (col. 3, lines 44-47).

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9. Claims 28-31 stand rejected under 35 U.S.C. 102(e) as being anticipated by Sarwari (2003/0210334).

A. As per claims 28-31, Sarwari discloses an imager (Figs. 1A-B) comprising an image sensor (216) with at least one control output and processing circuitry on a common substrate (200) [0023]. The imager may also include filtering and an array of pixels configured as required by design [0032].

10. Claims 16, 17, 20-23, 31-33, 38, 39, 46, 47, 50-53 and 63 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Schofield et al. (5,796,094).

A. Shimizu is applied as above. The claimed invention differs in that the imaging system is explicitly used in a vehicle control system. Shimizu suggests that the disclosed imaging system may be used in a variety of applications which process image data (col. 12, lines 10-12). Schofield discloses a vehicle control system which uses image data to control a vehicle's headlight (Abstract; Figure 3) or other systems (column 11, 58-64). One of ordinary skill in the art would have found it obvious to utilize the imaging system of Shimizu in a variety of applications in which image data is processed and used to control a device, such as vehicle control systems of the type described by Schofield. Schofield additionally discloses other devices/inputs used specifically in vehicle headlight control such as ambient light sensor (Figure 3:84) and inputs such as vehicle steering and speed. With regards to the size of the image array and memory capacities, these parameters would have been dependent upon the particular devices used in constructing the imaging system.

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11. Claims 34, 35, 60-62, 64-67 and 69-73 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. **REMARKS**

A. As per the drawing and abstract objections, these requirements are maintained. With regards to the drawings, one should be able to readily distinguish elements shown without having to search the detailed description. This is especially true for block diagrams (i.e., Fig. 4). With regards to the abstract, the abstract provided is little more than a title. It offers absolutely no information regarding the nature of the disclosed/claimed invention.

B. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Applicant has offered nothing in rebuttal other than general allegations that the applied references do not disclose the claimed subject matter. Applicant has not disputed the *prima facie* case whereby specific elements in the drawings and/or relevant written portions of the prior art have been cited against the claims.

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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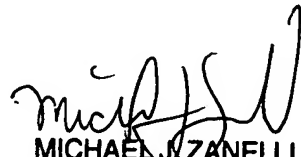
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (571) 272-6969. The examiner can normally be reached on Monday-Thursday 8:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz

  
MICHAEL J. ZANELLI  
PRIMARY EXAMINER